



December 15, 2016

Via ECFS

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

Re: Wireless E-9-1-1 Location Accuracy Requirements, PS Docket No. 07-114

Dear Ms. Dortch:

Next year, wireless carriers will begin meeting new location accuracy requirements for both outdoor and indoor 9-1-1 calls, as required by the Commission's *4<sup>th</sup> Report and Order on Wireless E911 Location Accuracy Requirements* (Order). As a follow up to CTIA's September 21, 2016 ex parte letter in this docket, CTIA submits the attached template and explanatory information to demonstrate how wireless carriers can consistently format the 9-1-1 live call data reports required by the Order.

Attachment A includes a report template that carriers can use when reporting 9-1-1 live call data on a quarterly or biannual basis, as required by the Order. Attachment B includes a revised presentation to annotate the data provided in a report. The revised presentation includes modifications to Slides 2 and 5 to note that carriers may exclude data about calls routed to Public Safety Answering Points (PSAPs) that are not at least capable of receiving some wireless Phase II location accuracy information.<sup>1</sup> On Slide 5, the modified presentation also notes that 9-1-1 live call data reports requested by a PSAP will be referenced in Universal Coordinated Time (UTC).

Sincerely,

/s/ Matthew Gerst

Matthew Gerst  
Director, Regulatory Affairs

cc: David Furth, FCC PSHSB  
Tim May, FCC PSHSB

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<sup>1</sup> According to the National Emergency Number Association (NENA), 98.5% of PSAPs have some Phase II. NENA, 9-1-1 Statistics, available at <https://www.nena.org/?page=911Statistics> (last visited Dec. 12, 2016).



ATTACHMENT A  
9-1-1 LIVE CALL DATA REPORT TEMPLATE



ATTACHMENT B  
UPDATED PRESENTATION SLIDES

# Live 9-1-1 Call Location Data Reporting *Template & Considerations*

UPDATED: December 13, 2016

# Quarterly/Biannual Reporting of Aggregate Live 911 Call Location Data

- Quarterly (or biannually for NNPs) report covering six ESIF defined Monitoring Regions
  - San Francisco, Chicago, Atlanta, Denver/Front Range, Philadelphia, Manhattan (subject to coverage for NNPs)
- Aggregate data on the location technologies (or combinations of technologies) used for live 911 calls in the reporting area (i.e., 911 call location yields by position method)
  - Yield performance aggregated across the six monitoring regions
  - Yield performance also broken down by morphology (dense urban, urban, suburban, rural)
  - ATIS/ESIF is working to generate a common morphology mapping database for the six Monitoring Regions
  - Access Points per CMA within the NEAD (Provided by the NEAD LLC or its Administrator)
- Each report covers 911 call data from previous quarter (or six months for NNPs)
  - First report due 3 Feb 2017 (covering 4Q16)
  - Live 911 call data (network-wide) will be retained for a period of 2 years
- Reported location yields will reflect the best location estimate obtained within the first 30 seconds of the 911 call – regardless of whether or not the PSAP bid for the location result
- Reports may exclude 911 Calls :
  - Shorter than 30 seconds duration that do not result in a Phase II or dispatchable location estimate
  - From roaming handsets, gray market devices, NSI devices, and MVNOs
  - From Interconnected VoIP (e.g., VoWiFi) and Over-the-Top VoIP services (for future study)
  - Test calls (to the extent they can be identified)
  - Delivered to PSAPs that are not Wireless Phase II
- Method of Submission
  - Reports should be treated as “confidential” when submitted to the FCC
  - Carriers will individually make Reports available to APCO/NENA/NASNA subject to appropriate confidentiality restrictions

# Scope of Live 911 Call Data Reports

- Quarterly for Nationwide Providers
  - Report covering six ESIF defined Monitoring Regions (San Francisco, Chicago, Atlanta, Denver/Front Range, Philadelphia, Manhattan)
- Biannually for Non-Nationwide Providers (NNPs)
  - Operate in one Monitoring Region – Report on that Region or portion covered
  - Operate in more than one Monitoring Region – Report on only half the Regions covered (selected by the provider)
  - Operate in none of the Monitoring Regions – Report on largest county within coverage footprint
    - If serve more than one morphology (DU, U, S, R) – include counties to cover each morphology

# Quarterly/Biannual Report Template of Aggregate Live 911 Call Location Data

- Report will contain 911 call location yields by position method
- Yields aggregated from live 911 calls across the six monitoring regions

*Example Report – Sorted by Position Method*

POSITION METHOD	MORPHOLOGY	YIELD
AGPS	Dense Urban	40%
	Urban	55%
	Suburban	65%
	Rural	85%
	Combined	58%
OTDOA	Dense Urban	15%
	Urban	15%
	Suburban	12%
	Rural	7%
	Combined	13%
Hybrid	Dense Urban	40%
	Urban	27%
	Suburban	18%
	Rural	4%
	Combined	25%
ECID	Dense Urban	5%
	Urban	3%
	Suburban	5%
	Rural	4%
	Combined	4%

*Example Report – Sorted by Morphology*

MORPHOLOGY	POSITION METHOD	YIELD
Dense Urban	AGPS	40%
	OTDOA	15%
	Hybrid	40%
	ECID	5%
	AGPS	55%
Urban	OTDOA	15%
	Hybrid	27%
	ECID	3%
	AGPS	65%
	OTDOA	12%
Suburban	Hybrid	18%
	ECID	5%
	AGPS	85%
	OTDOA	7%
	Hybrid	4%
Rural	ECID	4%
	AGPS	58%
	OTDOA	13%
	Hybrid	25%
	ECID	4%

NOTE: This slide provides an example of how the reports should be formatted. This template is not inclusive of all position methods that may be reported by a carrier.

# Available Upon PSAP Request Live 911 Call Location Data

- Report upon request of a PSAP covering 911 calls delivered to that PSAP
  - Report intended for discrete PSAP requests for troubleshooting purposes
  - To be provided as soon as possible but no later than 60 days from individual PSAP request
  - OMB Approval of the Data Reporting Requirement is Based on 10 Requests Per Year Per Carrier among All PSAPs
- Report covers 911 call data from previous quarter
  - Individual Call Data – Date, Time, Duration, Position Method, Uncertainty Estimate (No caller identifying data will be included in the reports)
  - Report call times will be referenced to Universal Coordinated Time (UTC)
  - Collective Statistics for Delivered Calls – Location Yields by Position Method and Confidence Level for Uncertainty Estimates
  - Live 911 call data (network-wide) will be retained for a period of 2 years
- Reported call tracking data will reflect the best location estimate obtained within the first 30 seconds of the 911 call – regardless of whether or not the PSAP bid for the location result
- Real Time Call Tracking Data will be same call-by-call location information provided to PSAPs today as defined by J-STD-036 (callback number, location estimate, uncertainty estimate, position source/class of service)
  - No other call tracking data will be available to PSAPs in real time (see Para. 191 of the FCC's 4th R&O).
- Reports may exclude 911 calls:
  - Shorter than 30 seconds duration that do not result in a Phase II or dispatchable location estimate
  - From roaming handsets, gray market devices, NSI devices, and MVNOs
  - From Interconnected VoIP (e.g., VoWiFi) and Over-the-Top VoIP services (for future study)
  - Test calls (to the extent they can be identified)
  - Delivered to PSAPs that are not Wireless Phase II



# Available Upon PSAP Request Report Template

## *Individual Call Record Data*

Date (MM-DD-YY)	Time (HH:MM:SS)	Duration (H:MM:SS)	Position Method	Uncertainty Estimate (m)
10-01-16	08:05:39	0:00:39	AGPS	23.7
10-03-16	14:07:26	0:05:17	OTDOA	56.9
10-04-16	18:39:45	0:02:51	AGPS	16.3
10-07-16	22:58:16	0:00:45	ECID	123.8
10-08-16	01:17:33	0:00:57	Hybrid	20.5
10-08-16	09:26:07	0:01:43	AGPS	42.6
10-12-16	14:28:30	0:16:20	AGPS	8.2
10-17-16	19:05:24	0:04:55	OTDOA	39.5
10-19-16	23:51:50	0:02:47	Hybrid	28.0
10-23-16	07:27:19	0:09:31	AGPS	27.4
10-25-16	21:31:42	0:13:03	AGPS	53.9
10-30-16	05:21:06	0:03:42	Hybrid	12.4

NOTE: This slide provides an example of how the reports should be formatted. This template is not inclusive of all position methods that may be reported by a carrier.

# Available Upon PSAP Request Report Template

## *Collective Statistics for Delivered Calls*

- Location Yields by Position Method and Confidence Level for Uncertainty Estimates

Position Method	Yield
AGPS	50%
OTDOA	17%
Hybrid	25%
ECID	8%

- All uncertainty estimates were provided at a 90% confidence level

NOTE: This slide provides an example of how the reports should be formatted. This template is not inclusive of all position methods that may be reported by a carrier.

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